

## DETAILED ACTION

This office action is in response to the Remarks filed 30 September 2008,

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 18, 6, and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Revord (USPN 3809566), in view of Klus (U.S. Patent 6,340,389), Brouard (USPN 5507996), further in view of Randel (USPN 1901051). **As to Claim 18**, Revord teaches a method for manufacturing a building element based on plaster (plaster is gypsum, 1:10-15), comprising preparing a mixture (1:41-45) of plaster, water and filler (vermiculite, 6:28-50), placing said mixture in a mold (3:45-50), compressing the mixture in the mold by first applying a packing pressure and then applying a higher pressure to the mixture to obtain the building element (3:45-50, the article is inherently capable of being used as a building element), wherein the amount of pressure applied to the mixture in the mold and the quantity of water in the mixture are sufficiently high to prevent the plaster crystallization under pressure in the mixture (3:28-48, "then sets" in 3:29, which indicates it was not set or crystallized prior), and then unmolding the building element and allowing the plaster in the mixture to crystallize outside the mold (3:28-34, "then sets" in 3:29). Revord teaches the conventionality of using 40 to 70 cc water (1 cc water = 1 gram) for 100 parts by weight of plaster or gypsum (1:64-69).

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Revord is silent to the claimed 30 to 45 seconds. Klus shows that it is known to carry out a method wherein the mixture is compressed in the mold during 30 to 45 seconds (Column 7, lines 56-67). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Klus' compression time during Revord's molding process in order to obtain the desired amount of compression in the final article.

Revord does not show the claimed composition. Brouard's mixture meets or suggests the claimed amounts (5:25-30). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Brouard's composition as that of Revord's process in order to obtain the final article having a particular composition and relative characteristics.

**As to Claim 18 and 12**, Revord shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show a specific pressure. Randel's pressure suggests the claimed pressure, and although Revord appears to be silent to a temperature, the Examiner submits that the claimed temperature reads on room temperature, and therefore would have been prima facie obvious when combined with Randel's pressure.

**As to Claim 6**, Revord shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not necessarily teach a two-step pressing process to reduce voids. However a two-step process would have been obvious over Brouard's teachings at 5:57-28.

**As to Claim 8**, Revord's vermiculite (6:28-50) is inherently chemically inert with respect to the gypsum.

2. **Claim 9-12 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Revord and Klus, further in view of Dailey (USPN 2571343). Revord and Klus teach the subject matter of Claim 18 above under 35 USC 103(a). **As to Claim 9**, Revord and Klus appear to be silent to a filler that is not inert with respect to the plaster. However, Dailey teaches organic fillers such as paper fiber, wood flour, hemp, and starch (1:30-38), and the Examiner takes the position that these substances would be at

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least partially “not chemically inert” with respect to the plaster. Dailey additionally teaches soluble potassium salts in order to control setting expansion (6:50-52), which also constitutes a filler that is “not chemically inert” with respect to the plaster. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Dailey into that of Revord and Klus in order to produce a dense, strong and tough cast (4:45-50) because of its reinforcement (1:36) requiring no drying (4:24-35). **As to Claims 10 and 11**, Dailey teaches the beneficial aspects of melamine (2:20-25). It would have been further prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Dailey’s method in order to provide “the very desirable characteristic of decreasing the amount of water required to be mixed with the alpha gypsum to produce a mix of pourable of fluid consistency.” (2:15-19). **As to Claim 12**, Dailey teaches that temperature is a result effective variable (2:34-43). See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Additionally, because 15 to 20 degrees C is approximately room temperature, the particular conditions would have been prima facie obvious. **As to Claim 14**, Dailey teaches the beneficial aspects of melamine (2:20-25). It would have been further prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Dailey’s method in order to provide “the very desirable characteristic of decreasing the amount of water required to be mixed with the alpha gypsum to produce a mix of pourable of fluid consistency.” (2:15-19).

3. **Claims 13 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Revord and Klus, further in view of Jagdmann (USPN 1925050). Revord and Klus teach the subject matter of Claim 18 above under 35 USC 103(a). **As to Claims 13 and 15**, Revord shows the process as claimed as discussed in the rejection of Claim 18 above, but he does not show driving an element into the mold Jagdmann teaches driving at least one element with a reduced cross section into the mixture in the mold and guiding and driving a rod axially in translation into the mixture (Page 1, lines 40-45, also see Page 4, lines 70-92 and Figs. 7 and 8). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the

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method of Jagdmann into that of Revord and Klus in order to provide a more uniform size and density (Page 1, lines 1-55).

### ***Response to Arguments***

Applicant's arguments filed 30 September 2008 have been fully considered but they are not persuasive.

Applicant's arguments are substantially the same as those filed 29 January 2008 and 14 August 2008. These arguments are discussed as nonpersuasive in the Office Actions mailed 30 April 2008 and 25 August 2008. Arguments which have not been previously raised and responded to are discussed below.

Applicant contends that Revord does not prevent crystallization and cites Column 10, lines 40-46 to support this position. This is not persuasive because there is no clear indication in the cited passage to delineate what happens inside or out of the mold; It cannot be relied upon for teaching that the crystallization happens within the mold. Therefore, it is maintained that the disclosure at Column 3, lines 16-30 is clear that the mixture is not set (i.e. crystallized) until it is removed from the mold.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation to combine the references to suggest the instant invention have been provided in the rejection above, and applicant has not taken specific issue with any of the given reasons to combine. Applicant contends that the references would not be combinable for other reasons. It is noted that the Examiner's reason for combining does not have to be the same as applicant's (MPEP 2144 (I) and (IV)).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONICA A. HUSON whose telephone number is (571)272-1198. The examiner can normally be reached on Monday-Friday 7:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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